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EPIC Second Investment Plan

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Several of the initiatives in the Draft Investment Plan will benefit from analytics: Strategic Objectives 1.1, 2, 7, 8, 18.3, and 21, for example. Already AMI interval data enable new tools that did not exist a decade ago; time-of-use pricing is only one example. Enabling broad access to higher-frequency data will enable development of a further set of tools for diagnostics, prediction, optimization, guiding customer service interactions, and measurement and verification, both at grid-scales and within individual commercial or residential buildings. With such access, a large community of innovators will be able to find new ways to include time-varying human behavior, weather, and other factors in analyses that enter into planning and measurement and verification.

Currently, private companies that provide personalized energy recommendations to homeowners, for example, depend on their customers to purchase hardware to collect the data, and those two parties are the only ones sharing the data. If instead the IOU, or a contractor for the IOU, collects these data, the IOU can oversee secure management of the data and possibly even generate revenue from the data. More importantly, the IOU can better position itself to be the trusted energy advisor that helps ratepayers save money while lowering IOU costs (by more efficiently targeting outreach programs), promoting greater reliability (by better predicting demand), providing societal benefits (by aligning IOU's and customers' goals), and mitigating GHG emissions (by promoting efficiency and consumption based on a better understanding of usage patterns).

There is a cost to collecting higher-frequency data in terms of bandwidth, storage, and data cleaning, and there are also important privacy concerns with respect to use of such data. There can also be enormous value derived from these data. Broad access will make it possible for those with novel analytics or market engagement ideas to act on their new ideas without developing a data collection business. **We propose that EPIC funding be used for pilot studies that include collection of higher-time-resolution data (such as 1-minute electricity data and half-hour gas usage data) and demonstration of innovative tools that use these data and business models for providing and sharing these data with the entire community of potential analytics and market engagement innovators.**

